Misleading in social decision-making : a motivational approach
Steinel, W.

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With the memories of the accounting scandals in Enron Corp., Royal Ahold, and several other multinational companies still fresh in our minds, many of us puzzle over the question why some people keep using lying and deception to get ahead in the world of business or politics. What makes them so greedy, and what makes them believe they could get away with it? Are such examples out of the ordinary, or do they reflect normal practice that usually remains behind closed doors? And, perhaps most importantly, what can be done to prevent these fraudulent practices from persisting in the future?

Whether we like it or not, lying is a fact of everyday life. People tell about one or two lies per day on average, and they do so for a variety of reasons, such as for material gain, for personal convenience, to escape punishment (DePaulo, Kashy, Kirkendol, Wyler, & Epstein, 1996), to spare other people's feelings (DePaulo & Bell, 1996; DePaulo & Kashy, 1998, Metts, 1989), or to appear more likeable (Feldman, Forrest, & Happ, 2002). Yet at the same time, people regularly put themselves in a vulnerable position and jeopardize their personal outcomes by being honest and

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5 This chapter is adapted from Steinel and De Dreu (2003).
accurate, that is by refraining from using lies and deception. Such may be the case especially when long-term considerations come into play, and concerns with one's reputation start to play a role.

Social psychological work on lying and deception has primarily focused on people's ability to lie convincingly, and on the detection of dishonest behavior (e.g., DePaulo et al., 1996, 2003). Economic and behavioral decision research (see Lewicki, 1983) has primarily addressed factors that stimulate lying and deception. Interestingly, however, people often provide honest and accurate information even when doing so makes them more susceptible to exploitation by others. For example, in bargaining and negotiation, people often provide accurate information about their preferences and priorities, even though doing so puts their opponent in a more advantageous position. In these situations, the question what leads people to behave honestly becomes especially pertinent, and it is these situations the current study focuses on. One particularly important factor we focus on is the individual's concern with his or her reputation.

We integrate economic models of reputation and social psychological work on audience effects to argue and show that mere observation by others, as well as possible negative consequences in the long run, lead people to refrain from lying and deception, even if this places them in a vulnerable position, that is, makes exploitation by their interaction partner(s) more likely.

**Lying and Deception in Mixed-Motive Interdependence**

In conflict and negotiation, individuals experience mixed-motive interdependence. They have a cooperative incentive to work together with the other party to increase joint gain, yet at the same time, they also have a competitive incentive to work against the other party to increase personal gain (Axelrod, 1980; Carnevale & Pruitt, 1992; Komorita & Parks, 1995; Schelling, 1960).

The cooperative incentive makes the situation particularly conducive to the exchange of honest and accurate information, which successfully fosters the achievement of high joint gain. The competitive incentive makes the situation particularly conducive to the use of misrepresentation and deception, because successfully lying can increase one's individual outcomes. Individuals in mixed-motive interdependence therefore find themselves in what has been called the
"information dilemma" – should they provide accurate information to achieve high collective outcomes, or rather strategically misrepresent their preferences to foster the achievement of good personal outcomes (Kelley & Thibaut, 1978; Murnighan, Babcock, Thompson, & Pillutla, 1999)?

Individuals facing an information dilemma engage in a variety of deceitful activities (e.g., Kelley, 1966; for a review, see Lewicki, 1983). People tend to deceive more when they know that their opponent lacks information (Boles, Croson, & Murnighan, 2000), or when the stakes increase (Tenbrunsel, 1998). Also, lying and deception are more likely when negotiators have experience with the task at hand (Murnighan et al., 1999), when they face a stranger rather than a friend (Schweitzer & Croson, 1999), and when they aim to maximize personal rather than joint outcomes (O'Connor & Carnevale, 1997). In line with goal expectation theory (Pruitt & Kimmel, 1977), Steinel and De Dreu (in press, see Chapter 3) argued and showed that individuals deceive a competitive counterpart more than a cooperative one. Facing a competitive other increases greed, and through lying and deception individuals try to get better outcomes. Also, facing a competitive other elicits fear of exploitation, and through lying and deception individuals try to protect their own outcomes.

Although various studies have demonstrated that facing a competitive other gives rise to tendencies to engage in lying and deception (O'Connor & Carnevale, 1997; Schweitzer & Croson, 1999; Steinel & De Dreu, in press), concern with reputation (henceforward referred to as reputation concern) tempers such tendencies and leads individuals to accept a short-term risk of exploitation. People may well realize that reputations precede social interaction in a broad range of situations, from decision-making in social dilemmas to business negotiation. A client's reputation is a main criterion for a credit card company's decision about giving a charge-off (Hammond & McGuire, 1994), and a licensee's reputation for trustworthiness is a crucial consideration for restaurants negotiating trademark licenses (Heicklen, 1998).

Tinsley, O'Connor and Sullivan (2002) showed that negotiation dyads involving bargainers notorious for their competitiveness got lower joint outcomes, which illustrates that "tough guys finish last" (p. 621). It has been argued and demonstrated that in repeated social dilemmas purely competitive individuals get involved in fewer transactions, and tend to end up with lower personal outcomes.
(e.g., Axelrod, & Dion, 1988; Axelrod & Hamilton, 1981; Lahno, 1995; Messick & Liebrand, 1995; Sheldon, 1999). Thus, a competitive, tough reputation appears to hamper rather than boost long-term gain, and this realization may lead people to refrain from lying and deception, even if dishonesty might pay off in the short run.

**When Does Reputation Matter**

Reputation concern comes into play when an audience is observing and evaluating a target person's behavior. In the literature on effects of reputation cited above, it is implicitly or explicitly assumed that a negative reputation has long-term consequences for the individual involved. This assumption is most clearly articulated in economic models of behavior which state that utility maximization is a useful approximation of behavior (Kagel & Roth, 1995). Reputation concern matters when reputation can lead to exclusion from the group, which decreases the own utility. Initial evidence for this proposition derives from work by Kerr (1999), who found higher levels of cooperation in resource dilemmas when the group had a chance to exclude non-cooperative members. Cooperation was higher under threat of exclusion, except when the excluded group member was economically better off through exclusion. Thus, in accordance with economic models of human behavior, we expect greater concern with reputation, and less lying and deception, when the material outcomes of actual or future transactions are at risk, than when choice behavior is private and anonymous.

Social psychological theory does not require the material outcomes of actual or future transactions to be at risk for reputation concern to become a barrier against lying and deception. Economic considerations alone can hardly explain why people donate money to charity or why they sometimes have empathy with and behave cooperatively even towards people who have made a defective choice in advance (Batson & Ahmad, 2001; Batson & Moran, 1999). The work of Batson and colleagues illustrates that even in rather competitive situations, there are incentives other than economic ones to make people choose a cooperative rather than competitive course of action. Likewise, research on the bystander effect has shown that bystanders influence behavior, even if no interaction takes place and no future consequences seem likely (e.g., Chekroun & Brauer, 2002; Darley & Latane, 1968; Tice & Baumeister, 1985). People are driven by a desire to please those who observe their
behavior (Baumeister, 1982), and even more so when they believe that others can make personality trait inferences from a sample of their behavior (Gilovich, Savitsky, & Medvec, 1998; Vorauer & Ross, 1999). Thus, in contrast to economic models, social psychological work suggests greater concern with reputation, and less self-serving lying and deception when observing others are present rather than when choices are made in private.

The predictions derived from the economic models of reputation and the social psychological work on audience effects were tested in two experiments. In both experiments individuals faced a rather competitive other. By misleading the competitive other, participants could increase their personal outcomes, or prevent the other from taking advantage of them. Both experiments contrasted three conditions: a condition in which decisions to give accurate or misleading information were made anonymously and in private (private-choice condition) a condition in which other participants were said to observe the choices the participants made (observation-only condition), and a condition in which other participants were said to observe the choices made in order to be able to subsequently decide whether the participant should be allowed to enter the next round of a potentially profitable game (economic-consequences condition).

If reputation concern plays a role only, or especially, when consequences for future pecuniary gain are at stake, then people should engage in less lying and deception in the economic-consequences condition than in the other two conditions. If reputation concern plays a role already when other people observe one’s behavior without this having any consequences for one’s present or future personal outcomes, we should find evidence that the observation-only condition produces less lying and deception than the private-choice condition. We explored whether the observation-only condition produces less, or similar levels of lying and deception as the economic-consequences condition.

**Experiment 1**

**Method**

Participants and experimental design. Fifty-three first-year psychology students at the University of Amsterdam (\( n = 20 \) male and \( n = 33 \) female) completed a questionnaire as part of a course requirement. The design had one three-level
between-participants factor (condition: private choice vs. observation only vs. economic consequences), and the main dependent variables were concern with reputation, and accuracy of presentation of private information to a competitive other Participants were randomly allocated to experimental conditions.

**Material and manipulation of the independent variable.** Participants read a scenario that was constructed so that lying to an interdependent other would increase short-term gain. Specifically, participants read that they were playing a game together with a number of people they did not know. The game had several rounds and in each round in which they participated they would stand a chance of winning some money. In each subsequent round, they and another participant would receive a lottery ticket together. However, just one of the two was ever going to see the ticket. Each participant had to imagine that he or she were the one who would get hold of the ticket. Subsequently, they would get to know which prize the ticket had won and the corresponding amount would be credited to their account. The other player would not know if the ticket had won any prize and would have no chance whatsoever to find out about it unless the co-player (i.e., the 'informed' participant) told him or her.

Reputation concern was manipulated by telling participants what their audience was going to do. Participants in the private-choice condition received no further information about the game. In the observation-only condition, participants were told that some participants would not engage in the lottery game, but would rather take the role of observers who would carefully observe the interaction of the other players. In the economic-consequences condition, participants received the same information as in the condition above, and were further told that the observers would vote which player was to be excluded from participation in all further rounds.

After that, participants in all conditions were asked to picture themselves playing a first round of the game and were told that they have acquired a ticket. They read that their ticket had won them 100 Dutch guilders (approx. $40). The other player would ask whether the ticket had won, and, in case it had, how much. Participants read in the instructions that the other player would be free to ask any share of the prize and that they had to give that amount to him or her. Participants further read that they could tell the other player whatever they liked. He or she
would never find out how much the ticket had won. Then they were asked what they would tell the other.

Dependent variables. The main dependent variable was the information participants gave about the prize that their ticket had won them. Participants were asked to fill the gap in the sentence "I would say the ticket has won [...] guilders" with a number between 0 and 100. All participants filled in a number between 0 and 100. Writing "0" down would mean that the lottery ticket had won nothing. Writing "100" down would mean giving accurate information. In our scenario, 0 is the "biggest" possible lie, higher numbers represent lies of a smaller magnitude, and one hundred is an honest, accurate answer. Even though one could argue that any number but 100 is a lie, we treated information as a continuous variable, with a possible range from 0 (maximum lie) to 100 (accurate information).

After participants had written down a number, they were asked several manipulation check questions to find out if they had understood the instructions and remembered the manipulation. Participants had to answer on five-point scales. Participants were asked (1) if anyone at all except for themselves knows how much the ticket had actually won them, (2) if somebody had been observing their behavior, and (3) if it could have happened that they got cast out, thus losing their right to participate in the following rounds (1 meaning certainly not, 5 meaning definitely). As a measure of reputation concern, participants were asked to judge their expected reputation in the eyes of the others after this round (1 meaning very bad, 5 meaning very good). Additionally, three questions assessed how concerned participants were about their reputation, namely to what extent (1) their reputation had been at stake in their own eyes, (2) it would concern them that they might ruin their reputation in the eyes of the others, and (3) it would matter to them what their standing would be in the other players' estimation (1 meaning not at all, 5 meaning very much). The answers were intercorrelated (alpha = .77), and we computed a mean score of relevance of own reputation.

Results

Manipulation checks. One-way analyses of variance showed that participants' answers to the question whether anyone would know how much the lottery ticket had actually won were influenced by condition, $F(2, 50) = 7.46, p < .001$. Participants
in the private-choice condition gave lower ratings \((M = 2.42, SD = 1.74)\) than participants in the observation-only and the economic-consequences condition \((M = 3.94, SD = 1.60;\) and \(M = 4.29, SD = 1.26,\) respectively). A Duncan test \((p < .05)\) showed that the latter two conditions differed from the first, but not from each other. The same pattern of results was found for the question if someone had been observing the game, \(F(2, 50) = 8.10, p < .001\): participants in the private-choice condition \((M = 3.11, SD = 1.63)\) gave lower ratings \((p < .05)\) than participants in the observation-only and the economic-consequences condition \((M = 4.41, SD = 1.06;\) and \(M = 4.65, SD = 0.86,\) respectively). The latter two conditions did not differ significantly. Condition also influenced participants' beliefs about whether they could be thrown out of the game, \(F(2, 50) = 32.42, p < .001.\) Participants in the economic-consequences condition gave higher ratings \((M = 4.06, SD = 1.48)\) than participants in the other two conditions \((M = 1.37, SD = 0.96;\) and \(M = 1.41, SD = 0.87,\) respectively). According to a Duncan test \((p < .05)\), the economic-consequences condition differed from the other two conditions, which did not differ from each other. This pattern of results shows that participants correctly understood the manipulations.

**Descriptive statistics.** Table 4.1 shows the means, standard deviations, and intercorrelations of the dependent variables. On average, participants claimed that their lottery ticket had won them about 74 guilders, while, in fact, the prize was 100 guilders. The information they provided about the prize was strongly correlated with the reputation they expected to have after the game. This provides some initial evidence that reputation concern is inversely related to lying and deception.

**Table 4.1  Means, Standard Deviations, and Correlations of the Main Dependent Variables in Experiment 1**

<table>
<thead>
<tr>
<th></th>
<th>(M)</th>
<th>(SD)</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information Provided</td>
<td>73.57</td>
<td>29.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Reputation Concern</td>
<td>3.62</td>
<td>1.20</td>
<td>.48***</td>
<td></td>
</tr>
<tr>
<td>3. Relevance of Reputation</td>
<td>2.39</td>
<td>1.12</td>
<td>.20</td>
<td>.07</td>
</tr>
</tbody>
</table>

*Note.***\(p < .001\) (two-tailed).*
Deception. Table 4.2 shows the means and standard deviations of the main dependent variables in the three experimental conditions. The information provided by participants in the private-choice condition deviated most from the accurate score of 100 guilders, as they claimed that their lottery ticket had won 56.31 guilders on average. A one-way ANOVA with condition as between-participant factor revealed that this differed significantly from what participants in both other conditions claimed (80.24, and 86.18 guilders, respectively; $F(2, 50) = 6.54, p < .01$).

This pattern supports the social psychological approach to lying and deception. Interestingly, the observation-only and the economic-consequences conditions did not differ, suggesting that mere observation is a sufficient condition to inhibit lying and deception. This provides some initial evidence that the economic model of reputation rests on a number of superfluous assumptions and should be rejected.

Table 4.2  *Main Dependent Variables as a Function of Condition in Experiment 1*

<table>
<thead>
<tr>
<th>Condition</th>
<th>Information Provided</th>
<th>Reputation Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Choice</td>
<td>56.32a (31.53)</td>
<td>3.32a (1.11)</td>
</tr>
<tr>
<td>Observation Only</td>
<td>80.24b (25.10)</td>
<td>3.47ab (1.28)</td>
</tr>
<tr>
<td>Economic Consequences</td>
<td>86.18b (20.73)</td>
<td>4.12b (1.11)</td>
</tr>
</tbody>
</table>

Note.  a, b Cell means that do not share the same subscript differ at $p < .05$ according to a Duncan test. The numbers in parentheses are standard deviations.

Reputation Concern. Table 4.2 shows that severer consequences of reputation lead to more reputation concern, $F(2, 50) = 2.33, p = .10$. Participants in the private-choice condition reported the least reputation concern, participants in the observation-only condition reported slightly, but not significantly, more reputation concern, $t(34) = -.40, ns$. Participants in the economic-consequences condition reported the most reputation concern that differed significantly from participants in the private-choice condition.
Mediation analysis. Our theory suggests that reputation concern affects the provision of accurate information. Indeed, experimental condition influenced the provision of information as well as reputation concern. Moreover, reputation concern was positively correlated with the accuracy of the information provided. To test whether reputation concern does indeed mediate the effects of condition on the provision of accurate information, we ran three regression analyses performed along the lines suggested by Baron and Kenny (1986) and Kenny, Kashy, and Bolger (1998). This showed that experimental condition predicted reputation concern ($\beta = .29, p < .05$), as well as the accuracy of the information provided ($\beta = .40, p < .01$). Further, reputation concern significantly predicted the accuracy of the information provided ($\beta = .44, p < .01$). The reduction in variance explained when going from simple to multiple regression approached significance ($\beta = 0.40$ vs. $0.28$, $Z = 1.79$, $p = .07$). Although results could have been stronger, we conclude that reputation concern partially mediated the effect of condition on the information provided.

Discussion and Introduction to Experiment 2

When individuals believed that they had been able to make their choices in private, they were more likely to provide misleading information than when they believed others could observe them. This corroborates the social psychological account of reputation concern – the mere presence of others influences behavior towards an implicit norm, in this case the norm of being honest and accurate. These findings are particularly interesting because the mere presence of others appears to affect behavior even when there is a risk of exploitation by the competitive other.

No differences between the economic-consequences and the observation-only condition were observed, suggesting that mere observation is a sufficient condition and that the additional assumptions made in economic work are superfluous. However, we should not forget that Experiment 1 employed a scenario in which individuals had to imagine themselves to be involved, and on the basis of this imaginary situation they were asked to provide estimates of their likeliest behavior. Hence we could not possibly reject the economic model before making an independent replication in a behavioral decision-making setting.

In Experiment 2, thus, we used the Information Provision Game developed by Steinel and De Dreu (in press) to test our hypotheses again. In the Information
Provision Game, participants expect an interdependent other to make a decision that yields certain outcomes to him- or herself and to the participant. The game is set up in such a way that the participant's and the decision maker's outcomes are negatively correlated – opposed interests are brought into play. However, participants are told that the decision maker has incomplete information and is only aware of the consequences of his or her decision for his or her own outcomes, and not of the consequences of his or her decision for the participant's outcomes (i.e., the decision maker does not know that the situation involves opposed interests). In contrast, the participant is given full information about his or her own outcomes, and about the decision maker's outcomes, and thus knows that own and other's interests are opposed. Prior to the decision-making, participants are given the opportunity to inform the decision maker about the consequences of the latter's decision for the participant's outcomes.

Prior research (Steinel & De Dreu, in press) has shown that participants who expect to interact with a competitive opponent are particularly motivated to engage in lying and deception. A strategic way of misleading a competitive opponent is to suggest that both one's potential gains and one's potential losses would exceed those of the counterpart. Pretending that a zero-outcome to the opponent means a negative outcome to oneself, and a high payoff to the counterpart means an even higher payoff to oneself could make the lowest individual outcome attractive to the competitive other, as it would still seem to involve a relative gain.

Participants can withhold information and do nothing, they can present the situation (accurately) as involving opposed interests, (inaccurately) as involving compatible interests, or anything in between. Hence the Information Provision Game allows one to assess (a) the amount of accurate and inaccurate information participants provide, and (b) the direction of deceit – the way participants present the decision situation to their interdependent other.

**Experiment 2**

**Method**

*Participants and experimental design.* Eighty-six students at the University of Amsterdam \( (n = 33 \text{ male and } n = 53 \text{ female students}) \) participated and received 15 guilders (approx. $6). Participants were randomly assigned to three experimental
conditions (i.e., private choice, observation only, economic consequences). Main dependent variables were the amount of information about preferences and priorities provided to the other and the accuracy of this information. Additional measures involved the motivation for providing more or less accurate information.

Procedure and manipulation of the independent variables. The procedures and tasks were similar to the Information Provision Game, employed by Steinel and De Dreu (in press). Upon arrival in the laboratory, participants were seated in cubicles equipped with a computer, a pen and several blank sheets of paper. First of all, participants were asked to complete a bogus personality test which was used to create a certain (false) impression of their opponent (see below). The test contained twenty items dealing with cooperation in daily life (e.g., "In the bus, I stand up and let older people have my seat"; "I enjoy working with other people"; "Winning is everything"). Participants indicated their agreement on a five-point scale (bounded by $1 = \text{completely disagree}$ and $5 = \text{completely agree}$). Previous research has shown that this test has high face validity and can be convincingly used to generate false impressions of another person's motives (De Dreu & Van Kleef, in press). Upon completion of the test, the experimenter collected the materials and participants started with a new task on the computer.

On their computer screens, participants read the instructions of a decision game. They were told that eight participants would take part in the experimental session. To keep the interaction anonymous, the players would be addressed by the identification codes A1, A2, B1, B2, C1, C2, D1, and D2 during the experiment. Allegedly, identification codes were to determine the role of each player and the linkage of interacting dyads, namely two players with the same letter would play the decision game together.

The purpose of the decision game was to determine an outcome concerning two issues, A and B. On both issues, one out of three levels, x, y, or z, had to be chosen. One player (the one with a 2 in the identification code, henceforth referred to as decision maker) would determine for both the issues A and B which level (x, y, or z) would be chosen, and, as such, would determine both his or her own outcomes as well as the outcomes of the other player (henceforth referred to as information provider). Participants also read in the instructions that the decision maker would receive information about his or her own payoffs, but would never receive objective
information about the information provider's payoffs. Thus, the decision maker would only be given incomplete information. The information provider would receive information about both his or her own and the decision maker's payoffs.

The information provider would start the game by sending a message to the decision maker with information about the outcomes he or she would receive for each of the possible decision options the decision maker could choose from. The decision maker would then be asked to make a decision determining both his or her own outcomes and the information provider's outcomes. It was emphasized that decisions would result in a number of points, and that the decision game would be played over several rounds. Participants would have a chance to earn points in each round. At the end of the experiment, points would be converted into lottery tickets. The more points gained, the more lottery tickets one would get, and hence the greater one's chance of winning a cash prize of 50 guilders (approx. $20).

Participants were further told that, in each round of the game, the identification codes would be randomly assigned among the participants. In the private-choice condition, participants received no further information on the different roles in the game. In the observation-only condition, participants were told that those participants who were given the identification codes D1 and D2 would not engage in the decision game, but would act as observers who would carefully watch the interaction of the other players via the computer network. In the economic-consequences condition, participants received the same information as in the condition above and were further told that the observers would be in a position to vote down information providers, i.e. to determine which information providers are going to be excluded from participation in all further rounds.

Participants were told that it would be impossible for them to find out against whom they played and roles (player 1 or player 2) would be determined at random. In fact, each participant was placed in the role of player B1 (i.e., an information provider) and was told that in the first round he or she would play with player B2. Participants were told that they, as information providers, would receive information about both parties' payoffs, while the decision maker would only be aware of his or her own payoffs and would never receive objective information about the payoffs of the information provider. Participants received their payoff tables and a detailed explanation. As can be seen in Table 4.3, on issue A, they could
earn 6, 3, or 0 points, and on issue B 2, 1, and 0 on the levels z, y, or x, respectively. The fictitious other’s payoffs were the mirror image of the participant’s payoffs. A quiz ensured that the instructions were understood.

Table 4.3  Payoff Table in Experiments 2 and 3

<table>
<thead>
<tr>
<th>Outcome to Player B1</th>
<th>Outcome to Player B2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue A</td>
<td>Issue B</td>
</tr>
<tr>
<td>Level x</td>
<td>0</td>
</tr>
<tr>
<td>Level y</td>
<td>3</td>
</tr>
<tr>
<td>Level z</td>
<td>6</td>
</tr>
</tbody>
</table>

Note. Participants are Player B1.

We then gave participants false information about the other’s motivation. We told them that we were interested in the consequences of having information about the other player. Participants were also told that they, but not their counterpart, had been selected to receive some information about the opponent. That information, we claimed, was elicited by means of the personality test filled out by all at the beginning of the experiment. They received the test allegedly filled out by the other, with circled numbers on the rating scales for each item. The results suggested that the other was rather competitive. For example, participants saw that the other had answered “2” on the item “In the bus, I stand up and let older people have my seat” (i.e., they disagreed; see also De Dreu & Van Kleef, in press).

It was then repeated that the decision maker would never get objective information about the payoffs of the information provider. Participants were told that they could to provide information about their own payoffs to the decision maker. They could fill out an empty payoff table that would afterwards be sent to the decision maker. Participants were also told that they could claim anything they wanted, that is, they could give as much information as they wanted and were free to choose between giving accurate and inaccurate information. Participants were shown an empty payoff table. On the same screen, just below the table there was a
row of 25 boxes containing the numbers from -12 to +12, and a box containing a question mark. Subjects were told that for each of the six cells in their payoff table they could select either a number between -12 and +12, or the question mark when they did not want to give any information about their points in that cell (see Appendix A). The choice would then appear in the appropriate cell of the payoff table (see Appendix B). Having made their choice for all six cells, participants could change their choices as often as they wanted. Once they clicked the "send" button, however, their choices would become irreversible. The payoff table with the values participants claimed to have got (in cells xA, yA, zA, xB, yB, and zB) was then allegedly sent to the decision maker.

Dependent measures. The numbers participants claimed were the values of the cells xA, yA, zA, xB, yB, and zB in their own payoff table were used to create two related indices of information provision. We classified all bits of information as accurate or inaccurate. Inaccurate means that the number a participant entered into a cell was higher or lower than their actual payoff in that cell. By counting the cells that contained accurate and inaccurate information, we calculated an amount of accurate information and an amount of inaccurate information. Both indices are discrete with a range of 0 to 6, the sum of both indices equals the total amount of information given. As participants had to enter numbers or question marks into six cells of the payoff table, the number of cells in which they gave no information (question marks) equals six minus the total amount of information.

After participants had sent their information, we asked them to rate their impression of the opponent on a five-point scale (bounded by 1 = cooperative and 5 = competitive). More than 90% of all participants gave an answer on the scale mean or higher. Participants' rating of their opponent's competitiveness (M = 4.05, SD = 1.11) differed from the scale mean (3.0), t(85) = 8.78, p < .001, and did not differ between the conditions, F(2, 83) = 1.21, p > .30, ns.

Results

Amount of accurate and inaccurate information. The amount of accurate and inaccurate information was analyzed in a 3 (condition: private choice vs. observation only vs. economic consequences) x 2 (information: accurate vs. inaccurate) ANOVA with the last factor as a within-participants variable. A main effect of information,
$F(1, 83) = 128.7, p < .001,$ indicates that participants gave more inaccurate ($M = 4.55, SD = 1.52$) than accurate information ($M = 1.07, SD = 1.45$). This overall tendency makes sense in light of the fact that the other party was presented as competitive, and the means indeed closely resemble those reported by Steinel and De Dreu (in press) in their competitive-other conditions.

More importantly, results revealed a significant interaction of information with condition, $F(2, 83) = 6.35, p < .01$. As can be seen in Table 4.4, condition significantly affected both the provision of accurate information and the provision of inaccurate information. Whereas participants in the private-choice condition provided mainly inaccurate and hardly any accurate information, participants in the economic-consequences condition gave considerably more accurate and less inaccurate information. Economic consequences seem to trigger the provision of accurate information, as participants in the economic-consequences condition provided more accurate information than participants in the private-choice and in the observation-only condition. With respect to inaccurate information, the significant difference is between private choice and public choice. Participants in the private-choice condition gave more inaccurate information than did participants in the observation-only or the economic-consequences condition (means and standard deviations in Table 4.4).

**Table 4.4 Provision of Accurate and Inaccurate Information as a Function of Condition; Experiment 2**

<table>
<thead>
<tr>
<th></th>
<th>Private Choice $(n = 35)$</th>
<th>Observation Only $(n = 25)$</th>
<th>Economic Consequences $(n = 26)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate Information</td>
<td>0.60$^a$ (0.84)</td>
<td>1.00$^a$ (1.32)</td>
<td>1.77$^b$ (1.92)</td>
</tr>
<tr>
<td>Inaccurate Information</td>
<td>5.17$^c$ (0.98)</td>
<td>4.40$^d$ (1.50)</td>
<td>3.85$^d$ (1.83)</td>
</tr>
</tbody>
</table>

*Note.* $a, b$ Cell means in the same row that do not share subscripts differ at $p < .05$ according to a Duncan test. The numbers in parentheses are standard deviations.
Direction of deceit. The information provided in each of the six cells was submitted to a 3 (condition) x 2 (issue: A vs. B) x 3 (level: x vs. y vs. z) ANOVA, with the last two variables as within-participants factors. Question marks were regarded as missing data, which led to the exclusion of 19 participants. Results revealed a main effect of issue, $F(1, 64) = 4.00, p = .05$, showing that participants (correctly) stated that they got more points on issue A ($M = 2.26, SD = 2.26$) than on issue B ($M = 1.66, SD = 1.81$). More importantly, results revealed a main effect of level, $F(2, 63) = 19.95, p < .001$. Participants misrepresented their interests when dealing with a competitive opponent. They pretended that to them level x would be the most valuable one ($M = 5.01, SD = 3.78$), level y the intermediate one ($M = 1.68, SD = 2.50$), and level z the least valuable one ($M = -0.81, SD = 4.71$). Participants, thus, pretended that they got most points on level x, despite the fact that level x is in fact their least profitable level. There was no significant interaction with condition, $F(4, 128) < 1$, which means that this pattern was the same in all conditions.

We examined the number of participants who engaged in strategic misrepresentation by suggesting they would get negative outcomes when the other gets zero (cells zA and zB of the payoff table, see Table 4.3). The percentages of people who did so on issue A ranged between 28.6% and 42.3% and did not differ between the conditions, $\chi^2(2, N = 86) = 1.31, ns$. On issue B, the percentages ranged from 24.0% to 31.4% and did not differ between the conditions, either, $\chi^2(2, N = 86) < 1, ns$. We then examined the number of participants suggesting their outcomes exceeded those of the other (cells xA and xB of the payoff table, see Table 4.3).

For issue A, the percentages ranged from 44.0% to 48.6% and did not differ between the conditions, $\chi^2(2, N = 86) < 1, ns$. For issue B, the percentages ranged from 53.8% to 62.9% and did not differ between the conditions either, $\chi^2(2, N = 86) < 1, ns$. These percentages closely match those usually found among participants who face a competitive other (Steinel & De Dreu, in press). The finding that the percentages do not differ between the conditions suggests that the participants in all conditions act equally strategically.

Discussion and Introduction to Experiment 3

The results we got in the controlled laboratory setting in Experiment 2 are in line with our findings from the scenario study in Experiment 1. Participants were
more open and honest (i.e., they gave more accurate information) when a deteriorated reputation could lead to adverse economic consequences. This is in accord with the economic model of behavior, as the results indicate that the threat of future economic consequences boosts reputation concern and stimulates the provision of accurate information, even when being honest puts one's short-term outcomes at risk. The two experiments discussed thus far suggest that the provision of inaccurate information is attenuated by mere observation. Also, the provision of accurate information increases substantially when people know that having a negative reputation implies that adverse economic consequences will ensue.

Furthermore, and as predicted, when individuals believed that their choices were made in private they were more likely to lie (i.e. they provided inaccurate, misleading information) than when they believed others were observing them. It did not matter if they were only observed, or if they faced economic consequences in addition. This finding corroborates the social psychological account of reputation concern again – the mere presence of others influences behavior towards the implicit norm of being honest.

Interestingly, participants who believed that others were watching them provided less inaccurate information, but still acted just as strategically as participants who made their choices in private. People gave fewer pieces of inaccurate information when they were observed, but nevertheless, as many people in the private-choice condition as in the two public-choice conditions used the strategies of pretending to get negative outcomes on level z and higher outcomes than the other on level x. This suggests that enhanced reputation concern reduced the quantity, but did not affect the quality of deception. We shall return to this finding in the General Discussion section.

In both experiments, results showed that the accuracy of information provided increased with reputation becoming more consequential. The economic model of behavior holds that reputation concern decreases lying and deception only when a deteriorated reputation is coupled with undesirable economic consequences. This model was only partly supported by our data. Participants gave more accurate information when their reputation had economic consequences than when it had no economic consequences, yet this was the only measure on which the economic-consequences condition differed from the observation-only condition. On all other
measures, including lying and deception, the crucial difference was between making one's choice in private or in the presence of others. In both experiments, participants lied significantly less when their behavior was observed, and the additional adverse economic consequences did not increase the effect significantly further. This pattern of results strongly supports the social psychological model, which views reputation concern as rather independent from the prospect of having to endure adverse material consequences. Central to the social psychological model of reputation concern is the assumption that, in the presence of others, people are motivated by a desire to please those who observe their behavior, even when the audience is in no position to exert any influence. People, however, differ both in self-presentational needs and in the ability to present their reputation in a favorable light. To test this possibility, we designed Experiment 3.

The two aims of Experiment 3 were, first, to replicate the main effect of the mere presence or absence of observers on giving inaccurate information, and, second, to explore the moderating influence of individual differences in self-presentation.

**Impression Management**

An important ability for creating a positive impression is self-monitoring (Snyder, 1974; Snyder & Gangestad, 1986). Snyder (1974) distinguishes between high and low self-monitors. The former possess the ability to "regulate their expressive self-presentation for the sake of desired public appearances," whereas the latter "are thought to lack either the ability or the motivation to so regulate their expressive self-regulation" (Snyder & Gangestad, 1986, p. 125). Snyder developed the Self-Monitoring Scale (SMS), a 25-item questionnaire to measure self-monitoring. Because the psychometric quality of the SMS was called into question (Briggs & Cheek, 1988; Briggs, Cheek, & Buss, 1980; Gabrenya & Arkin, 1980; Miller & Thayer, 1989), Lennox and Wolfe (1984) developed a 13-item Revised Self-Monitoring Scale (RS-M). It comprises the factors "ability to modify self-presentation" (seven items) and "sensitivity to the expressive behaviors of others" (six items). Several studies showed that the two-factor structure of the RS-M, as well as its internal reliability, and relationships with relevant constructs such as social anxiety and with Snyder's self-monitoring scale were good to excellent (Anderson, Silvester, Cunningham-
Snell, & Haddleton, 1999; Larkin, 1987; Lennox & Wolfe, 1984; Shuptrine, Bearden, & Teel, 1990). We translated the Revised Self-Monitoring Scale (Lennox & Wolfe, 1984), which, to the best of our knowledge, had not been used in Dutch studies before, and pre-tested our translation with 103 students at the University of Amsterdam (none of those who did the pre-test participated in Experiment 3). The correlations between the Lennox and Wolfe Revised Self-Monitoring scale (RS-M), its subscales, and the Snyder (1974) Self-Monitoring scale, the English wording of the RS-M items, our Dutch scale, norm data and item statistics can be found in the Appendices. The norm data we collected in our pre-test (see Appendix C) closely resemble those reported by Shuptrine et al. (1990) and Anderson et al. (1999). The correlations between the RS-M subscales, the total RS-M scale and the Snyder self-monitoring scale (see Appendix D) resemble closely the respective correlations reported by Shuptrine et al. A factor analysis of our pre-test data supported the original two-factor model as proposed by Lennox and Wolfe. We found no evidence for gender effects on any item (see Appendix C). Therefore we are confident that our Dutch version reliably measures the same construct as the original RS-M scale.

**Experiment 3**

Experiments 1 and 2 yielded some initial evidence for the argument that reputation concern is a barrier against lying, and identified observation (i.e., the presence of an audience) as a crucial aspect of that barrier. Participants whose behavior was visible to an audience gave less inaccurate information, in contrast to participants whose behavior was not observed by an audience. In Experiment 3, we expected to replicate this effect (Hypothesis 1). Because high self-monitors adjust their behavior to meet the social demands of a situation more than low self-monitors, we also expected that high self-monitors should be more strongly affected by reputation concerns. Thus, we predicted that the effect of the mere presence or absence of observers on the provision of inaccurate information would be stronger among high self-monitors than among low self-monitors (Hypothesis 2).

**Method**

*Participants and experimental design.* Fifty-four (n = 12 male and n = 42 female) students at the University of Amsterdam participated and received € 6 (approx. $6).
Participants were randomly assigned to the two experimental conditions of observation. Replicating two conditions of Experiments 1 and 2, choices were either made in private (i.e., \textit{private-choice condition}), or in the presence of observers (a replication of the mere-observation condition; henceforth referred to as \textit{public-choice condition}). Self-monitoring was inserted as a post-hoc blocking factor. The crucial aspect of self-monitoring for this research is the ability to modify self-presentation (Lennox & Wolfe, 1984, see Appendix C). Therefore, we used a median-split on the ability to modify self-presentation subscale of the Lennox and Wolfe Revised Self-Monitoring Scale to classify people as low or high self-monitors. We neglected the subscale measuring sensitivity to the expressive behavior of others, because our hypotheses involve no real interaction with others (to whose expressive behavior one could be sensitive), but rather focus on what participants think their future reputation will be in the eyes of others. Main dependent variables were the amount of information about preferences and priorities provided to the other and the accuracy of this information. Additional measures involved self-reports on the motivation for providing more or less accurate information.

\textit{Procedure and manipulation of the independent variables.} When participants came to the laboratory, they were seated in cubicles equipped with a computer. Participants answered a Dutch translation of the Lennox and Wolfe (1984) Revised Self-Monitoring Scale, were randomly assigned to the two observation conditions and then proceeded as in Experiment 2.

\textit{Dependent measures.} Participants answered the Lennox and Wolfe (1984) Revised Self-Monitoring Scale (the reader can find the Dutch translation and norm data in Appendix C). Depending on whether their score on the ability to modify their self-presentation subscale was above or below the Median ($Mdn = 22$), they were classified as either low or high in \textit{self-monitoring}. As in Experiment 2, we calculated indices of \textit{accurate and inaccurate information}. Participants were asked to rate their \textit{impression of the opponent} on a five-point scale (bounded by $1 = \text{cooperative}$ and $5 = \text{competitive}$). No participant rated the competitive opponent as cooperative, and ratings of the opponent's competitiveness ($M = 3.91$, $SD = 0.97$) differed significantly from the scale mean, $t(53) = 6.93$, $p < .001$. As a manipulation check, participants were asked to rate the item "My behavior was observed by other participants" on a five-point scale (bounded by $1 = \text{fully reject}$ and $5 = \text{fully accept}$).
Participants indicated their gender and age, were thanked, debriefed and paid.

**Results**

*Treatment of the data and descriptive statistics.* All dependent variables were submitted to Analysis of Variance (ANOVAs) with the between-participants factors observation (private choice vs. public choice), self-monitoring (low vs. high) and gender (male vs. female). Gender had no influence on any variable (all Fs < 1.6, *ns*) and was left out of further analyses. Table 4.5 presents the means and standard deviations broken down for the experimental conditions.

<table>
<thead>
<tr>
<th>Table 4.5</th>
<th>Means and Standard Deviations for Giving Accurate and Inaccurate Information Broken Down by Observation and Self-Monitoring; Experiment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private Choice</td>
</tr>
<tr>
<td></td>
<td>Low Self-Monitors <em>(n = 14)</em></td>
</tr>
<tr>
<td>Accurate</td>
<td>0.93a (1.14)</td>
</tr>
<tr>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>Inaccurate</td>
<td>4.64c (1.78)</td>
</tr>
<tr>
<td>Information</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* a, b Cell means in the same row that do not share subscripts differ at *p* < .05 according to a Duncan test. The numbers in parentheses are standard deviations.

*Manipulation check.* A 2 (observation) × 2 (self-monitoring) ANOVA revealed that under private choice, participants agreed less with the sentence "My behavior was observed by other participants" than under public choice *(M = 2.18, SD = 1.12 vs. M = 3.19, SD = 1.49), F(1, 50) = 7.88, *p* < .01.* No other effects were significant.

*Amount of accurate and inaccurate information.* The amount of accurate and inaccurate information was analyzed in a 2 (observation) × 2 (self-monitoring) × 2 (information: accurate vs. inaccurate) ANOVA with the last factor as a within-participants variable. A main effect of information, *F*(1, 50) = 46.85, *p* < .001, showed
that participants gave more inaccurate ($M = 4.09, SD = 1.96$) than accurate information ($M = 1.22, SD = 1.59$). This overall tendency makes sense in the light of the fact that the other party was presented as being competitive. More importantly, and consistent with Experiments 1 and 2, results revealed an interaction between information and observation, $F(1, 50) = 5.25, p < .05$. As can be seen in Table 4.5, participants gave more accurate and less inaccurate information under public choice than under private choice. Results further revealed a trend towards the expected three-way interaction of information, observation, and self-monitoring, $F(1, 50) = 3.76, p = .058$. Consistent with Hypothesis 2, under public-choice, high but not low self-monitors gave less inaccurate information. Although there was a tendency for high-monitors to also provide more accurate information while under observation, this effect was not significant. In other words, the effect of private versus public choice found in Experiment 2 appears to be stronger for high self-monitors.

**Direction of deceit.** The information provided in each of the six cells was submitted to a 2 (observation) x 2 (self-monitoring) x 2 (issue: A vs. B) x 3 (level: x vs. y vs. z) ANOVA, with the last two variables as within-participants factors. Question marks were regarded as missing data, which led to the exclusion of 16 participants. A main effect of issue, $F(1, 34) = 8.75, p < .01$, showed that participants (correctly) stated that they got more points on issue A ($M = 2.68, SD = 1.71$) than on issue B ($M = 1.86, SD = 1.25$). A main effect of level, $F(2, 33) = 13.53, p < .001$, showed that participants pretended that to them level x would be the most valuable one ($M = 4.54, SD = 3.28$), level y the intermediate one ($M = 1.47, SD = 1.68$), and level z the least valuable one ($M = 0.80, SD = 3.98$).

As can be seen in Figure 4.1, participants engaged in the type of misrepresentation which is usually found for people who face competitive others (Steinel & De Dreu, in press). They pretended that they got most points on level x, despite the fact that level x was in fact their least profitable level.

Results further revealed a trend towards an interaction of level with observation ($F(2, 68) = 2.62, p = .08$). Consistent with our hypothesis, the magnitude of misrepresentation was smaller under public choice rather than private choice. Whereas participants under public choice claimed that the difference in value between level x and level z was $M = 1.83$ ($SD = 5.24$), participants under private choice claimed that the difference was $M = 5.57$ points ($SD = 7.50; t(37) = 1.77, p < .10$).
We examined the number of participants who engaged in strategic misrepresentation by suggesting that they would get negative outcomes in cells zA and zB (see Table 4.3). Logistic regression revealed no main effects of observation or self-monitoring (Bs range from -1.13 to 0.21, all ns), nor any interactions (B = -1.67, and B = -1.83, respectively, both ns). The percentages of people who pretended to get negative outcomes ranged between 7.1% and 35.7% for cell zA, and between 7.1% and 28.6% for cell zB.

We then examined the number of participants suggesting their outcomes exceeded those of their opponent in cells xA and xB (see Table 4.3). Logistic regression, similarly, revealed no main effects of observation or self-monitoring (Bs range from -1.18 to 0.78, all ns) and no interactions (B = -1.48, and B = -1.48, respectively, both ns). The percentages of people who pretended to get higher outcomes than the opponent ranged between 14.3% and 50.0% for cell xA, and between 21.4% and 64.3% for cell xB.
The finding that the percentages do not differ between the conditions suggests that, like in Experiment 2, the participants act equally strategically in all conditions. However, the absence of significant effects could also be a result of a lack of statistical power due to small cell sizes. Despite not significant in logistic regression, the data suggests a trend towards the following: for each of the four strategies (i.e., enter a negative value in cell zA, enter a negative value in cell zB, enter a value higher than 6 in cell xA, and enter a value higher than 2 in cell xB), the lowest percentage of participants who applied that particular strategy was always found among high self-monitors in the public-choice condition, and the highest percentage was always found among high self-monitors in the private-choice condition. The percentages among low self-monitors were in between in all cases.

This suggests that under public scrutiny, high self-monitors reduce their use of strategic misleading more than do low self-monitors. However, this trend failed to reach significance in the logistic regression. It seems as if the prevalence of strategic misrepresentation (i.e., the quality of deception) differed less between the conditions as did the overall provision of inaccurate information (i.e., the quantity of deception). We will return to this point in the General Discussion.

Discussion

The findings of Experiment 3 replicate and refine the pattern of results found in Experiments 1 and 2. Participants who assumed that they were observed while providing information gave less inaccurate information than did participants who assumed that they could make their choice in private. More importantly, we argued and demonstrated that this tendency is more pronounced among high self-monitors than among low self-monitors. Because self-monitoring is closely related to reputation concern, this effect is consistent with our idea that effects of observation on lying and deception are due to reputation concern.

General Discussion and Conclusions

Reputation affects mutual exchange interactions. A competitive strategy, although sometimes beneficial in the short-term, may yield lower profits in the long run than a cooperative course of action (Axelrod & Dion, 1988; Axelrod & Hamilton, 1981; Lahno, 1995; Messick & Liebrand, 1995; Sheldon, 1999; Tinsley et al., 2002).
Individuals face situations in which being open and honest promotes the discovery of mutually beneficial agreements yet also opens the door to getting exploited by a competitive counterpart. One way to protect oneself from being exploited by a competitive counterpart is by misleading the counterpart. However, strategic misrepresentation is a deceitful activity and engaging in lying and deception can damage one's reputation.

We reasoned that whether individuals engage in lying and deception would depend on their concern with their reputation. To test this assumption, we compared two models of human behavior, the economic and the social psychological one. Whereas the economic model holds that reputation concern makes people refrain from lying when a deteriorated reputation has material consequences (e.g., it may lead to exclusion from profitable future exchanges), the social psychological model holds that reputation concern matters as soon as one's behavior is observed.

In Experiment 1 and 2, three conditions were compared: one in which reputation mattered according to the economic model, one in which reputation mattered according to the social psychological model, and one in which reputation did not matter. Both experiments provided little support for the economic model. In Experiment 1 was found that people gave more accurate information about a prize they won, when observers could exclude them from future exchanges involving material gain, than under anonymity. However, facing economic consequences did not increase the accuracy of information above the level that resulted from mere observation. In Experiment 2, we further showed that this effect is not restricted to behavioral intentions in a vignette type of experiment, but can also be observed in actual behavior in a controlled experiment. Moreover, Experiment 2 showed that facing economic consequences influenced the amount of accurate information provided, but not the amount of inaccurate information. That is, facing economic consequences led to the provision of more accurate information than merely being observed. However, facing economic consequences did not lead to the provision of less inaccurate information than merely being observed. Thus, we found only weak support for the economic model of reputation concern.

The social psychological account of reputation, which holds that people develop a reputation concern as soon as they feel observed, was tested in all three experiments, and received considerable support. In Experiment 1, people gave more
accurate information about a prize they won when they were observed than under anonymity. Experiments 2 and 3 replicated this finding. However, some inconsistencies were observed. Whereas Experiment 1 showed that being observed increases the accuracy of the information provided, Experiment 2 showed that being observed influenced the amount of inaccurate information provided, but not the amount of accurate information given. Three explanations come to mind.

First, Experiment 1 used a scenario, whereas Experiments 2 and 3 were behavioral experiments. Methodological differences may account for the inconsistencies. Second, the measures taken in Experiment 1 did not discriminate between providing inaccurate and accurate information. As such, the dependent variables differ across experiments, and this may account for some of the apparent inconsistencies. Third, reputation concern is a stronger motive for high self-monitors than for low self-monitors, but we did not control for self-monitoring in Experiment 1 and 2. Consequently, Experiment 3 revealed an effect of observation on the provision of both accurate and inaccurate information, which appeared to be mainly caused by the behavior of high self-monitors. To play it safe, we conclude that observation reduces deception in terms of actively misleading one's counterpart, and perhaps in terms of withholding accurate information.

Interestingly, we found that reputation concern motivated people to decrease the quantity of inaccurate information they give. The quality of the deceptive messages they sent, however, remained virtually unchanged. People in the public-choice conditions of Experiments 2 and 3 gave less inaccurate information than in the private-choice condition. Nevertheless, the percentage of people who adopted a strategy of misleading the competitive opponent was only slightly (and not significantly) lower when choices were made in public. Reputation concern made people lie less, which was reflected in the fact that they provided fewer pieces of inaccurate information. The fact that they still lied about the details necessary to mislead a competitive counterpart suggests that, apart from telling "fewer lies," reputation concern makes people tell "better lies." In other words, reputation concern makes them try and modify their deceptive message ("Choose z, and I'll get less than you. Choose x, and I'll get more than you.") in such a way that they reach the same end (i.e., to strategically mislead a competitive counterpart) by sending fewer pieces of inaccurate information.
In ultimatum bargaining research, it has been shown that seemingly fair behavior (e.g., offering a 50-50 split of the coins to be divided) is often motivated by a desire to appear fair rather than to be fair (e.g., Pillutla & Murnighan, 1995; Straub & Murnighan, 1995; Van Dijk, De Cremer, & Handgraaf, 2002). Maybe providing accurate or inaccurate information in the Information Provision Game follows a similar mechanism as proposing fair or unfair divisions in the Ultimatum Bargaining Game. Future research should investigate whether and under what circumstances people try to appear rather than actually behave less deceitful.

Perhaps the most important contribution of Experiment 3 was that it showed that the effects of observation were more pronounced among high rather than low self-monitors. This finding has several implications. First, because high self-monitors are supposed to be more concerned with the impression they make on others, the finding that observation effects are stronger for high self-monitors is compatible with the idea that such effects are due to reputation concern. Some formal mediation analysis already supported this idea in Experiment 1, and together with the indirect evidence obtained in Experiment 3 we can safely conclude that observation reduces tendencies to engage in lying and deception because it increases self-presentation needs and concern with reputation.

At a more general level, the current studies contribute to our knowledge of the relation between self-monitoring and deception. Earlier research has shown that self-monitoring influences people's ability to engage in and to detect lying and deception. High self-monitors have been found to be more convincing liars than low self-monitors because they inform more carefully about the targets when they prepare their lies (Elliott, 1979), are more adept at controlling their facial expressions while lying (Miller, DeTurck, & Kalbfleisch, 1983; Siegman & Reynolds, 1983), and more adept at adapting the content of their lies to the target's expectations (Rowatt, Cunningham, & Druen, 1998). High self-monitors have also been found to be better lie-detectors than low self-monitors (DeTurck & Miller, 1990; Geizer, Rarick, & Soldow, 1977).

Earlier research suggests that high self-monitors are less resistant to lying than low self-monitors, because they are more adept at camouflaging leakage cues and, consequently, must be less afraid to get caught. Our data completes that picture by showing that, under certain conditions, high self-monitors might be even more
resistant to lying than low self-monitors. Two situational features seem to be necessary to discourage high self-monitors from lying and deceiving. First, social cues in the situation suggest that lying could damage one's reputation. In our experiment, this cue was the audience who observed the participant's choices. Second, it must be obvious that liars cannot get away with their lies, that is, that it is impossible for them to hide their deception. In our experimental situation, participants believed that the audience was aware of the size of their actual payoffs, and could therefore detect their deceit when their messages differed from that factual information.

In response to the recent cases of fraud and deception we mentioned at the outset of this paper, several suggestions about how such cases could be avoided in the future have been discussed. While some advocated more public control of business practices, others argued that surveillance without punishing wrongdoing was useless and favored increasing the legal and economic penalties on deceptive practices. Our results suggest that public control can keep people from deceiving, even in the absence of economic consequences.

**Summary and Conclusions**

Whereas previous research has mainly focused on the magnitude and form of strategic misrepresentation, the present research considered the other side of the coin by examining barriers to lying and deception in social decision-making. We argued that people lie less when they have reason to assume that doing so could harm their reputation and contrasted a social psychological with an economic model of reputation concern. Our data supports the idea people deceive less when they are merely observed by others, even in the absence of economic consequences. When economic consequences are present, people not only deceive less but also increase their openness. Because these patterns were stronger among high rather than self-monitors, it seems likely that the effects of observation are due to self-presentation needs and concern with reputation. Greater accountability to the public may help many of us, including those that lead multinationals, refrain from engaging in strategic misrepresentation and deceitful activity.